

AMENDMENT UNDER 37 C.F.R. § 1.116
U.S. Appln. No. 09/780,485

REMARKS

In the present Amendment, claim 1 has been amended to recite --which cell is formed by a blowing agent having a decomposition temperature of 170° or above--. This amendment is supported, for example, by claim 3.

No new matter has been added and thus, entry of the Amendment is respectfully requested. Upon entry of the Amendment, claims 1-11 will be all the claims pending in the application.

In Paragraph No. 3 of the Office Action, claims 1, 2 and 8-10 stand rejected under 35 U.S.C. § 102(b) as allegedly anticipated, or alternatively under 35 U.S.C. § 103(a), obvious over Tojo et al (US 4,877,817). Further, in Paragraph No. 4 of the Office Action, claims 8-10 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tojo et al in view of Okita et al (US 6,132,847). Lastly, in Paragraph No. 5 of the Office Action, claim 11 has been rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tojo et al in view of Saito et al (US 6,437,048).

Applicants respectfully submit that claims 1, 2 and 8-11 as amended are not anticipated or rendered obvious over Tojo et al, alone or further in view of Okita et al or Saito et al.

Tojo et al discloses Example 15 as the only example as to a foamed rubber, wherein it is described that p,p'-hydroxy bis (benzenesulfonyl hydrazide) (i.e., tradename "Celogen OT" manufactured by Uniroyal Chem. Co.) was used as a blowing agent.

Applicants respectfully submit that this compound's name is incorrect. The correct name for the compound used in Tojo et al is "p,p'-oxybis (benzenesulfonyl hydrazide)". Furthermore,

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the decomposition temperature of p,p'-oxybis (benzenesulfonyl hydrazide) ranges from 140-160°C.

For the Examiner's convenience, the homepage address of Uniroyal Chem. Co. on the internet, wherein the information as to Celogen OT is included, is as follows:

http://www.cromptoncorp.com/servlet/ContentServer?pagename=ck/product&c=ck_product&cid=1014147761353&countryid=990049202944&invoker=results&p=988033176659

In view of the above, it can be appreciated that the decomposition temperature of Celogen OT used in Example 15 of Tojo et al is 160°C at most.

On the other hand, the present claim (i.e., the above-amended claim 1) recites that the decomposition temperature of a blowing agent should be 170°C or above. When a blowing agent having a decomposition temperature of less than 170°C is used, the foamed rubber having an average cell diameter of 1-150 µm as recited in the present claim 1 cannot be obtained. See Table 2 in the present specification.

Accordingly, it is evident that the average cell diameter of the foamed rubber obtained by Example 15 of Tojo et al does not fall within the range of an average cell diameter of 1-150 µm as recited in the present claim 1.

Additionally, the physical properties of the products listed in Table 1 of Tojo et al relate to those of the non-foamed rubber. Tojo et al does not disclose the physical properties of the foamed rubber in Table 1.

Further, under MPEP 2131.01(III), "To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make clear that the missing descriptive

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matter is necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill" (citing *Continental Can Co. USA v. Monsanto Co.*, 948 F.2d 1264, 1268, 20 USPQ2d 1746, 1749 (Fed. Cir. 1991)) (emphasis added).

In this case, Tojo et al is silent about, *inter alia*, the cell diameter. On the other hand, Applicants have established, by the only example of the foamed rubber in Tojo et al, that the presently claimed cell diameter cannot be present in the rubber of Tojo et al. That is, the presently claimed cell diameter is not necessarily present in the rubber of Tojo et al.

Tojo et al discloses that a foaming aid may be used in addition to a blowing agent in preparing a vulcanizable and foamable chlorinated rubber composition (column 10, lines 18-21). Examples of the foaming aid include organic acids, urea and urea derivatives. The foaming aid acts to lower the decomposition temperature of the blowing agent, accelerate the decomposition, and make the cells uniform (column 10, lines 51-57). Stearic acid was used in Example 15 of Tojo et al.

As shown in Table 2 of the present specification, the decomposition temperatures of ADCA and DPT can be lowered to 170°C or less, when used in combination with urea (one of the examples of the foaming aid in Tojo et al), resulting in a large cell diameter in the foamed rubber (210 and 250 μ m, respectively, in the present specification).

Therefore, there is no reasonable ground for the Examiner's assertion of the inherency of the cell diameter of the present invention.

In view of the above, the Examiner is respectfully requested to reconsider and withdraw the rejections.

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In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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